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[Claim(s)]
[Claim 1] The read-out means which reads voice data from the record medium with which voice data was recorded, A level adjustment means to adjust the level of the voice data read with the above-mentioned read-out means by a predetermined method, The speech processing unit characterized by providing the speech recognition means which carries out speech recognition for the voice data after adjusting level with the above-mentioned level adjustment means, and an output means to output the recognition result of the above-mentioned speech recognition means.
[Claim 2] The read-out means which reads voice data from the record medium with which voice data was recorded, A voice judging means to judge the voice data read with the above-mentioned read-out means to an owner sound portion and a silent part, A level adjustment means to adjust the level of the voice data read with the above-mentioned read-out means by a predetermined method based on the absolute value of the voice data judged with the above-mentioned voice judging means to be an owner sound portion, The speech processing unit characterized by inputting the voice data after adjusting with the above-mentioned level adjustment means, and providing the speech recognition means which carries out speech recognition, and an output means to output the recognition result of the above-mentioned speech recognition means.
[Claim 3] The speech processing unit according to claim 2 characterized by being set up based on the minimum in which the minimum computer means which calculates the minimum of the energy of the voice data of the predetermined section was provided further, and the criterion of the above-mentioned voice judging means calculated it by the above-mentioned minimum computer means.
[Claim 4] By computer, are the voice recognition program for carrying out speech recognition the recorded record medium, and [the above-mentioned voice recognition program] Voice data is made to read from the record medium with which voice data was recorded on the computer. the record medium which recorded the voice recognition program which is made to carry out speech recognition for the voice data after making the level of the voice data which carried out [above-mentioned] reading appearance adjust and adjusting the above-mentioned level, and is characterized by making the above-mentioned speech recognition result output.
[Claim 5] Are the processing program for carrying out processing which passes voice data to a voice recognition program by computer the recorded record medium, and [the above-mentioned processing program] the record medium which recorded the processing program characterized by making the voice data after making voice data read to a computer, making the level of the voice data which carried out [above-mentioned] reading appearance adjust to it from the record medium with which voice data was recorded and adjusting the above-mentioned level to it pass to a voice recognition program.

[Detailed Description of the Invention]
[0001]
[Field of the Invention] the record medium as for which this invention recorded the speech processing unit and the voice recognition program, and the record medium which recorded the processing program -- in more detail It is related with the record medium which recorded the processing program for carrying out processing which passes voice data to a voice recognition program by the record medium which recorded the voice recognition program for carrying out speech recognition by the speech processing unit and computer which process voice data, and computer.
[0002]
[Description of the Prior Art] If voice data is inputted what is called a voice word processor or by stating orally Based on this voice data, a document is drawn up automatically, the dictation system implementation which

displays it on a screen etc. is one target in the speech recognition system development from the former, and research and development are furthered actively now.

[0003] A microphone is connected to a personal computer with an advance of such speech recognition technology in recent years, the equipment which documents the voice inputted using this microphone on this personal computer, and displays it on a screen is developed, and, generally it is marketed.

[0004] On the other hand, in drawing up a document, oral statement sound recording of the content of the document to draw up is once carried out conventionally at sound recording equipment, such as a tape recorder. While a secretary, a typist, etc. play the content of oral statement later, it has become common as one of the effective form of utilization of sound recording equipment, such as a tape recorder, to take the form of documenting with document preparation equipment, such as a typewriter and a word processor.

[0005] In the form of utilization dictated using such sound recording equipment, realization of the technology of changing the content of sound recording into a document automatically is strongly desired from before.

[0006] [with moreover, development of computer technology in recent years, digital-signal-processing technology, etc.] Digital-data-ize the content of sound recording, and record on the record medium in which the writing and elimination of a flash memory etc. are possible. It is possible for what is called a digital recorder to comes to be developed, to transmit the digitized content of sound recording to a personal computer further, and to play the content of sound recording in this personal computer.

[0007] These people are developing the processing control unit of the voice data which makes it possible to treat the recorded data transmitted from such a digital recorder by easy operation on a personal computer, and have proposed in Tokuganhei9-149728.

[0008] Furthermore, these people pass and do speech recognition of the voice data by which digital recording was carried out to a voice recognition unit from the processing control unit of the above-mentioned voice data, the dictation system displayed on a screen as a document is developed, and it has proposed in Tokuganhei9-149729.

[0009] According to such a dictation system, it is not necessary to sit down in front of a computer and to carry out direct voice input, it once records to a digital recorder, and it becomes possible to transmit the recorded data to a computer later, and to make a document draw up.

[0010] By the way, in order to raise the performance of speech recognition, it is required for voice inputting level to be proper. Under the present circumstances, it is difficult to guarantee a high recognition rate over the large range from a low to a high level, and it must be considered as setting out which can obtain the recognition rate greatest with an average sound level as equipment after all.

[0011] Then, the speaking person is made to control oneself by displaying the level meter which shows the height of a sound level to a screen etc. in the voice recognition unit of the form which performs voice input, for example from a microphone which was mentioned above, so that it may be in a state with a proper sound level.

[0012] As an example of such technology, to JP,H5-231922,A, the 1st ****** for sound signal reception, A sound-pressure-level ratio calculation means to ask for the ratio of the 2nd ****** which receives the noise signal near this 1st ******, and the sound pressure level inputted into said 1st ****** to the sound pressure level inputted into the 2nd ******, The sound-pressure-level drop for voice recognition units which has a display means to display the ratio of the sound pressure level called for with this sound-pressure-level ratio calculation means is indicated.

[0013]

[Problem to be solved by the invention] However, in the dictation system which passes voice data which was mentioned above, and by which digital recording was carried out to a voice recognition unit from a processing control unit, is made to carry out speech recognition, and is displayed on a screen by using the recognized result as a document, the already recorded voice data serves as an input to a voice recognition unit. Therefore, it did not have the function to be unable to distinguish whether the voice data already recorded is proper as an input level to a voice recognition unit, and to adjust a sound level automatically, either. For this reason, the recognition rate of speech recognition might change with the level of the recorded voice data a lot.

[0014] It aims at offering the speech processing unit, the record medium which recorded the voice recognition program, and the record medium which recorded the processing program which becomes possible [performing speech recognition which this invention was made in view of the above-mentioned situation, and was not based on the level of the recorded voice data, but was stabilized].

[0015]

[Means for solving problem] [the speech processing unit by the 1st invention] in order to attain the above-mentioned object The read-out means which reads voice data from the record medium with which voice data was recorded, It has a level adjustment means to adjust the level of the voice data read with the above-mentioned read-out means by a predetermined method, the speech recognition means which carries out speech recognition for the voice data after adjusting level with the above-mentioned level adjustment means, and an output means to

output the recognition result of the above-mentioned speech recognition means.

[0016] Moreover, a read-out means by which the speech processing unit by the 2nd invention reads voice data from the record medium with which voice data was recorded, A voice judging means to judge the voice data read with the above-mentioned read-out means to an owner sound portion and a silent part, A level adjustment means to adjust the level of the voice data read with the above-mentioned read-out means based on the absolute value of the voice data judged with the above-mentioned voice judging means to be an owner sound portion by a predetermined method, It has the speech recognition means which inputs the voice data after adjusting with the above-mentioned level adjustment means, and carries out speech recognition, and an output means to output the recognition result of the above-mentioned speech recognition means.

[0017] Furthermore, the speech processing unit by the 3rd invention is set to the speech processing unit by the 2nd above-mentioned invention. The minimum computer means which calculates the minimum of the energy of the voice data of the predetermined section is provided further, and the criterion of the above-mentioned voice judging means is set up based on the minimum calculated by the above-mentioned minimum computer means.

[0018] [and the record medium which recorded the voice recognition program by the 4th invention] By computer, are the voice recognition program for carrying out speech recognition the recorded record medium, and [the above-mentioned voice recognition program] speech recognition is carried out for the voice data after making the level of the voice data which was made to read voice data from the record medium with which voice data was recorded to a computer, and carried out [above-mentioned] reading appearance to it adjust and adjusting the above-mentioned level, and the above-mentioned speech recognition result is made to output

[0019] [in addition, the record medium which recorded the processing program by the 5th invention] Are the processing program for carrying out processing which passes voice data to a voice recognition program by computer the recorded record medium, and [the above-mentioned processing program] the voice data after making the level of the voice data which was made to read voice data from the record medium with which voice data was recorded to a computer, and carried out [above-mentioned] reading appearance to it adjust and adjusting the above-mentioned level is made to pass to a voice recognition program

[0020] Therefore, as for the speech processing unit by the 1st invention, a read-out means reads voice data from the record medium with which voice data was recorded. Speech recognition is carried out for the voice data after it adjusts the level of the voice data which the level adjustment means read with the above-mentioned read-out means by a predetermined method and a speech recognition means adjusts level with the above-mentioned level adjustment means, and an output means outputs the recognition result of the above-mentioned speech recognition means.

[0021] Moreover, as for the speech processing unit by the 2nd invention, a read-out means reads voice data from the record medium with which voice data was recorded. The voice data which the voice judging means read with the above-mentioned read-out means is judged to an owner sound portion and a silent part. The level of the voice data which the level adjustment means read with the above-mentioned read-out means based on the absolute value of the voice data judged with the above-mentioned voice judging means to be an owner sound portion is adjusted by a predetermined method. The voice data after a speech recognition means adjusts with the above-mentioned level adjustment means is inputted, speech recognition is carried out, and an output means outputs the recognition result of the above-mentioned speech recognition means.

[0022] Furthermore, the speech processing unit by the 3rd invention is set up based on the minimum which the minimum computer means calculated the minimum of the energy of the voice data of the predetermined section, and the criterion of the above-mentioned voice judging means calculated by the above-mentioned minimum computer means.

[0023] [and the record medium which recorded the voice recognition program by the 4th invention] Are for carrying out speech recognition by computer, and [the above-mentioned voice recognition program] speech recognition is carried out for the voice data after making the level of the voice data which was made to read voice data from the record medium with which voice data was recorded to a computer, and carried out [above-mentioned] reading appearance to it adjust and adjusting the above-mentioned level, and the above-mentioned speech recognition result is made to output

[0024] [in addition, the record medium which recorded the processing program by the 5th invention] Are for carrying out processing which passes voice data to a voice recognition program by computer, and [the above-mentioned processing program] the voice data after making the level of the voice data which was made to read voice data from the record medium with which voice data was recorded to a computer, and carried out [above-mentioned] reading appearance to it adjust and adjusting the above-mentioned level is made to pass to a voice recognition program

[0025]

[Mode for carrying out the invention] With reference to Drawings, the form of operation of this invention is

explained hereafter. Drawing 6 shows 1 operation form of this invention from drawing 1 , and drawing 1 is notional entire configuration drawing of the dictation system by which this invention is applied.

[0026] The digital recorder 1 which changes voice into an electrical signal and voice-data-izes it as this dictation system is shown in drawing 1 , Record-medium slack Miniature Card 2 which equips this digital recorder 1 removable, is used for it, and records the above-mentioned voice data, The PC card adapter 3 for inserting in PC Card slot 40 (referring to drawing 2) which mentions this Miniature Card 2 later, and making connection possible, the voice data which was equipped with the output means slack display 5, the keyboard 6, and the mouse 7 grade, and was obtained from above-mentioned Miniature Card 2 through above-mentioned PC Card slot 40] It has the personal computer 4 as a speech processing unit which performs processing by the control program 8 or the voice recognition program 9, and is constituted.

[0027] Next, drawing 2 is the block diagram showing the electric composition of the above-mentioned personal computer 4.

[0028] [the personal computer] while this personal computer 4 performs sound reproduction, an information display, etc. according to the above-mentioned control program 8 and performs document preparation etc. according to the above-mentioned voice recognition program 9 CPU31 which performs various processings according to various kinds of other programs, and served both as a read-out means, a level adjustment means, a speech recognition means, a voice judging means, the minimum computer means, the gain value computer means, the multiplication means, and the average computer means, The record-medium slack main memory 32 used as the working area of this CPU31, For example, the record-medium slack internal recording medium 33 it becomes by the hard disk, a floppy disk, etc. and with which the above-mentioned control program 8 and the voice recognition program 9 are recorded, The external port 34 for connecting with various kinds of external instruments, and the interface (it abbreviates to IF hereafter) 35 which connects the above-mentioned display 5, IF36 which connects the above-mentioned keyboard 6 and a mouse 7, and the loudspeaker 38 which utters voice based on voice data, Have, and IF37 which connects this loudspeaker 38, PC Card slot 40 in which Miniature Card 2 with which the above-mentioned PC card adapter 3 was equipped is inserted, and IF39 for connecting this PC Card slot 40 are constituted, and The above CPU 31 Main memory 32, the internal recording medium 33, the external port 34, IF35, 36, 37, and 39 are mutually connected through the bus.

[0029] In addition, although you may make it read voice data from Miniature Card 2 directly through above-mentioned PC Card slot 40, it once records on the above-mentioned internal recording medium 33. It may be made to read from this internal recording medium 33, or it does not matter even if it makes it read from a digital recorder 1 directly through means of communications etc.

[0030] In a dictation system, drawing and drawing 4 of drawing 3 which show the whole flow when reading a voice memory to voice data and carrying out speech recognition are a flow chart which shows processing of the speech recognition in a dictation system.

[0031] If processing is started as shown in drawing 4 , the voice data currently recorded in the file unit will be read from the voice memory 11 of above-mentioned Miniature Card 2 or the above-mentioned internal-recording-medium 33 grade, and decoding processing 12 will be performed (Step S1).

[0032] The result of this decoding processing 12 is sent to an owner sound / silent decision processing 13, and the sample average-absolute-value value computation 14.

[0033] And next, by an owner sound / silent decision processing 13, while performing computation of an owner sound / silent judging threshold (Step S2), based on the calculated threshold, an owner sound / silent decision processing is performed (Step S3). These processings are explained in detail in drawing 5 mentioned later. The result of this owner sound / silent decision processing 13 is sent to the above-mentioned sample average-absolute-value value computation 14.

[0034] Then, the above-mentioned sample average-absolute-value value computation 14 and the gain computation 15 perform processing which calculates gain (Step S4). This processing is explained in detail in drawing 6 mentioned later. Based on the gain value calculated by the above-mentioned gain computation 15, the output of the above-mentioned decoding processing 12 is amplified in the gain multiplication processing 16 (Step S5).

[0035] The voice data adjusted to suitable level by this gain multiplication processing 16 is sent to the speech recognition processing 17, and speech recognition is performed (Step S6).

[0036] And the transliteration of changing the result of this speech recognition into a character code is performed (Step S7), the changed character code is outputted, and display 18 is taken for the screen of the above-mentioned display 5 grade (Step S8).

[0037] In addition, although the speech recognition result is displayed on a display 5 as a character here, this invention is not limited to this.

[0038] Drawing 5 is a flow chart which shows the content of processing concerning the owner sound / silent

udgment in Step S2 and Step S3 of above-mentioned drawing 4 .
[0039] If this processing starts, the variable f which shows the counted value of a frame number will be first nitialized to 0 (Step S11).
[0040] Next, after incrementing Variable f, frame energy e (f) is calculated with (Step S12) and the formula of a graphic display (Step S13). In addition, an input signal [in / in s (i) / the sample of eye watch (i-1) in one frame] and N show among the formula the frame number which constitutes one frame.
[0041] Next, it judges whether it is the frame of whether the value of Variable f is 1, and the first stage (Step S14), and when f is 1, the value of the variable min which shows the minimum frame energy is set to e (1) (Step S16). .
[0042] moreover, when f is not 1 in the above-mentioned step S14 It judges whether frame energy e (f) is smaller than Variable min (Step S15), in being small, it sets frame energy e (f) to Variable min (Step S17), and on the other hand, in not being small, it goes to the following step S18, without doing anything as it is.
[0043] And it judges whether the file reached termination (Step S18), and in not being termination still, it repeats the processing returned and mentioned above to the above-mentioned step S12.
[0044] Moreover, when it is judged that the end of file was reached in this step S18, the value which integrated the predetermined value alpha (for example, 1.8) is set to the above-mentioned variable min as a threshold trs (Step S19), and it escapes from this processing.
[0045] Since such a processing method of threshold setting out can use effectively that voice data is already recorded and can determine a threshold based on the threshold energy of the whole file, it becomes possible [** (ing) to little owner sound / silent judging of an error].
[0046] In addition, although the minimum of the read entire interval (that is, all the frames which constitute a voice file) is calculated in ****, even if this invention is not limited to this and is no minimum of the sections, it should just be the section of a certain amount of length.
[0047] Then, drawing 6 is a flow chart which shows the content of the gain computation in Step S4 of above-mentioned drawing 4 .
[0048] If this processing starts, the variable Cnt which shows the variable SumAbs which shows the aggregate value of the variable f which shows the counted value of a frame number, and a sample absolute value, and the number of times of addition will be respectively initialized to 0 (Step S21).
[0049] Next, frame energy e (f) which incremented Variable f (Step S22) and calculated it in drawing 5 mentioned above judges whether it is larger than the threshold trs (Step S23). In being larger than the threshold trs, frame energy e (f) adds the sum total of the sample absolute value of a frame to the variable SumAbs itself (Step S24), and increments Variable Cnt here (Step S25).
[0050] Moreover, when frame energy e (f) is below a threshold in the above-mentioned step S23, it goes to the following step S26 as it is.
[0051] Next, it judges whether the file reached termination (Step S26), and in not being termination still, it repeats the processing returned and mentioned above to the above-mentioned step S22.
[0052] Moreover, when it is judged that the end of file was reached in this step S26, the average average of the sample absolute value of a frame is calculated by dividing the above-mentioned variable SumAbs by Variable Cnt (Step S27).
[0053] And Gain gain is calculated by breaking the predetermined value LEV by this average average (Step S28). The average of the sound sample absolute value which it is set as the average of the assumed sample absolute value, for example, was used for the study voice data in the speech recognition section is used for this predetermined value LEV here.
[0054] Since it can adjust to the level which was suitable for speech recognition to the voice data already recorded according to such an operation form, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized, and becomes a quality dictation system.
[0055] In addition, as for this invention, it is needless to say for various deformation and application to be possible within limits which are not limited to each operation form mentioned above, and do not deviate from the main point of invention.
[0056] [Additional remark] According to the above-mentioned operation form of this invention which was explained in full detail above, composition can be obtained at the following times.
[0057] (1) The read-out means which reads voice data from the record medium with which voice data was recorded, A voice judging means to judge the voice data read with the above-mentioned read-out means to an owner sound portion and a silent part, The average computer means which calculates the average of the absolute value of the voice data judged with the above-mentioned voice judging means to be an owner sound portion, The gain value computer means which calculates a gain value based on the above-mentioned average, and the multiplication means which multiplies voice data by the above-mentioned gain value, The speech processing unit

characterized by providing the speech recognition means which carries out speech recognition for the voice data after carrying out the multiplication of the above-mentioned gain, and an output means to output the recognition result of the above-mentioned speech recognition means.

[0058] (2) A read-out means by which the voice data by which frame division was digitized and carried out reads the voice data of a desired file from the record medium recorded per file, In the frame judged with a voice judging means to judge the voice data read with the above-mentioned read-out means to a frame unit at an owner sound frame and a silence frame, and the above-mentioned voice judging means to be an owner sound frame The average computer means which calculates the average of the absolute value of voice data, and the gain value computer means which calculates a gain value based on the above-mentioned average, The speech processing unit characterized by providing the multiplication means which carries out the multiplication of the above-mentioned gain value to the above-mentioned voice data, the speech recognition means which carries out speech recognition for the voice data after carrying out the multiplication of the above-mentioned gain, and an output means to output the recognition result of the above-mentioned speech recognition means.

[0059] (3) By computer, are the voice recognition program for carrying out speech recognition the recorded record medium, and [the above-mentioned voice recognition program] Voice data is made to read from the record medium with which voice data was recorded on the computer. based on the absolute value of the voice data which the owner sound portion and the silent part were made to judge the voice data which carried out [above-mentioned] reading appearance, and was judged to be the above-mentioned owner sound portion the record medium which recorded the voice recognition program which is made to carry out speech recognition for the voice data after making the level of the voice data which carried out [above-mentioned] reading appearance adjust by a predetermined method and carrying out [above-mentioned] level adjustment, and is characterized by making the above-mentioned speech recognition result output.

[0060] (4) Are the processing program for carrying out processing which passes voice data to a voice recognition program by computer the recorded record medium, and [the above-mentioned processing program] Voice data is made to read from the record medium with which voice data was recorded on the computer. based on the absolute value of the voice data which the owner sound portion and the silent part were made to judge the voice data which carried out [above-mentioned] reading appearance, and was judged to be the above-mentioned owner sound portion the record medium which recorded the processing program characterized by making the voice data after making the level of the voice data which carried out [above-mentioned] reading appearance adjust by a predetermined method and carrying out [above-mentioned] level adjustment pass to a voice recognition program.

[0061] (5) By computer, are the voice recognition program for carrying out speech recognition the recorded record medium, and [the above-mentioned voice recognition program] Voice data is made to read from the record medium with which voice data was recorded on the computer. [the average of the absolute value of the voice data which the owner sound portion and the silent part were made to judge the voice data which carried out / above-mentioned / reading appearance, and was judged to be the above-mentioned owner sound portion is made to calculate, and] The record medium which recorded the voice recognition program which inputs the voice data after making a gain value calculate based on the above-mentioned average, carrying out the multiplication of the above-mentioned gain value to voice data and carrying out the multiplication of the above-mentioned gain, is made to carry out speech recognition, and is characterized by making the above-mentioned speech recognition result output.

[0062] (6) Are the processing program for carrying out processing which passes voice data to a voice recognition program by computer the recorded record medium, and [the above-mentioned processing program] Voice data is made to read from the record medium with which voice data was recorded on the computer. [the average of the absolute value of the voice data which the owner sound portion and the silent part were made to judge the voice data which carried out / above-mentioned / reading appearance, and was judged to be the above-mentioned owner sound portion is made to calculate, and] The record medium which recorded the processing program characterized by making the voice data after making a gain value calculate based on the above-mentioned average, carrying out the multiplication of the above-mentioned gain value to voice data and carrying out the multiplication of the above-mentioned gain pass to a voice recognition program.

[0063] Therefore, after calculating the gain value based on the average of the absolute value of the owner sound portion in voice data and adjusting the level of voice data according to invention given in an additional remark (1), in order to perform speech recognition, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.

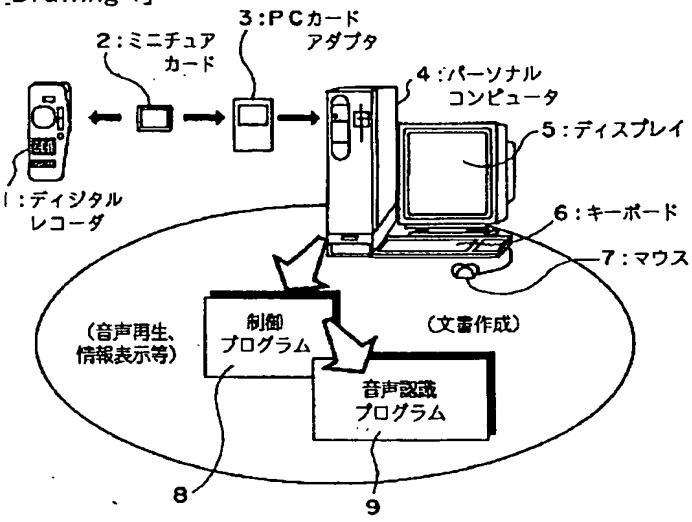
[0064] Moreover, after calculating the gain value based on the average of the absolute value of the owner sound frame in voice data and adjusting the level of voice data according to invention given in an additional remark (2), in order to perform speech recognition, it becomes possible to perform speech recognition which was not based

on the level of the recorded voice data, but was stabilized.
[0065] In order [furthermore,] for a voice recognition program to make the level of voice data adjust to it based on the absolute value of the owner sound portion in voice data according to invention given in an additional remark (3) before performing speech recognition to a computer It becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0066] After a processing program's making the level of voice data adjust to a computer based on the absolute value of the owner sound portion in voice data, in order to make voice data pass to a voice recognition program according to invention given in an additional remark (4) It becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0067] In order to make the level of voice data adjust according to invention given in an additional remark (5) before a voice recognition program makes a computer calculate a gain value based on the average of the absolute value of the owner sound portion in voice data and performs speech recognition It becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0068] According to invention given in an additional remark (6), a processing program [a computer] After making a gain value calculate based on the average of the absolute value of the owner sound portion in voice data and making the level of voice data adjust, in order to make voice data pass to a voice recognition program, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0069]
[Effect of the Invention] In order to adjust the level of voice data according to the speech processing unit of this invention by Claim 1 before performing speech recognition as explained above, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0070] Moreover, in order according to the speech processing unit of this invention by Claim 2 to adjust the level of voice data based on the absolute value of the owner sound portion in voice data before performing speech recognition, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0071] Furthermore, while doing so the same effect as invention according to claim 2 according to the speech processing unit of this invention by Claim 3, in order to take the minimum of the energy of voice data into consideration, a more suitable voice judging can be performed.
[0072] And in order for a voice recognition program to make the level of voice data adjust to it according to the record medium which recorded the voice recognition program of this invention by Claim 4 before performing speech recognition to a computer, it becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.
[0073] After a processing program's making the level of voice data adjust to a computer, in order [in addition,] to make voice data pass to a voice recognition program according to the record medium which recorded the processing program of this invention by Claim 5 It becomes possible to perform speech recognition which was not based on the level of the recorded voice data, but was stabilized.

[Brief Description of the Drawings]
[Drawing 1] Notional entire configuration drawing of the dictation system of 1 operation form of this invention.
[Drawing 2] The block diagram showing the electric composition of the personal computer of the above-mentioned operation form.
[Drawing 3] Drawing showing the whole flow when reading and carrying out speech recognition of the voice data from a voice memory in the dictation system of the above-mentioned operation form.
[Drawing 4] The flow chart which shows processing of the speech recognition in the dictation system of the above-mentioned operation form.
[Drawing 5] The flow chart which shows the content of processing concerning the owner sound / silent judgment in above-mentioned drawing 4 .
[Drawing 6] The flow chart which shows the content of the gain computation in above-mentioned drawing 4 .
[Explanations of letters or numerals]
1 -- Digital recorder
2 -- Miniature Card (record medium)
4 -- Personal computer (speech processing unit)
5 -- Display (output means)
8 -- Control program

9 -- Voice recognition program
11 -- Voice memory
12 -- Decoding processing
13 -- An owner sound / silent decision processing
14 -- Sample average-absolute-value value computation
15 -- Gain computation
16 -- Gain multiplication processing
17 -- Speech recognition processing
18 -- Display
31 -- CPU (a read-out means, a level adjustment means, a speech recognition means, a voice judging means, a minimum computer means, a gain value computer means, a multiplication means, average computer means)
32 -- Main memory (record medium)
33 -- Internal recording medium (record medium)

[Drawing 1]



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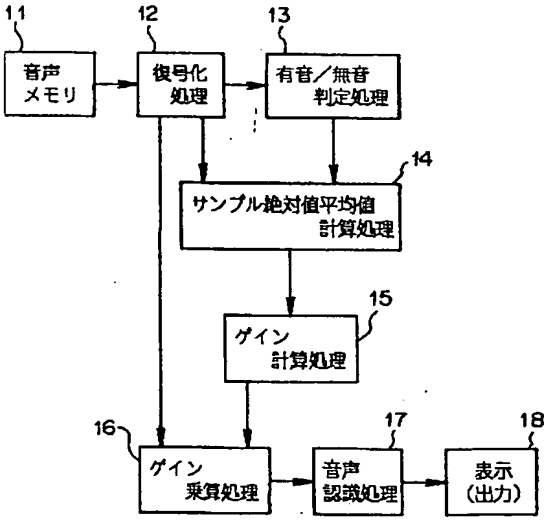
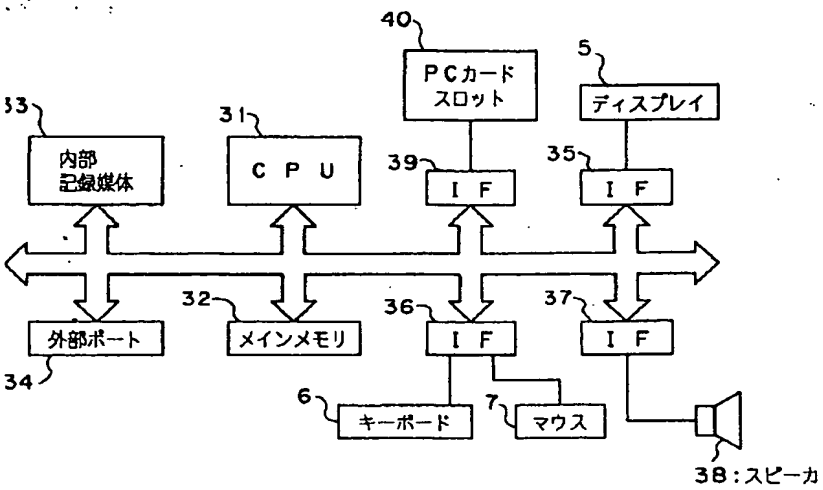
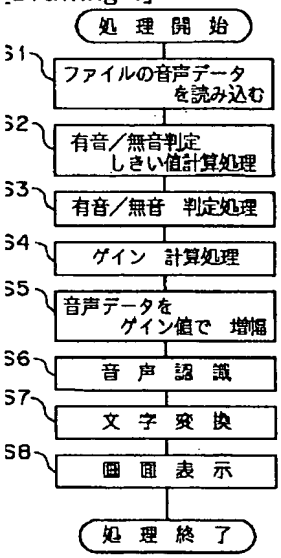


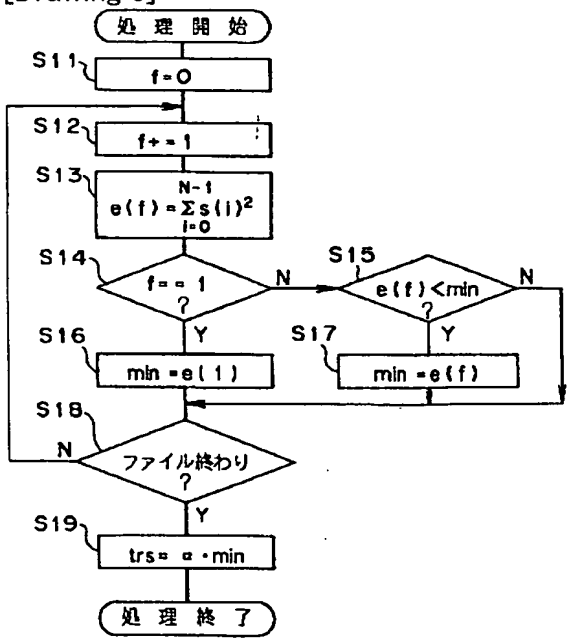
[Drawing 2]



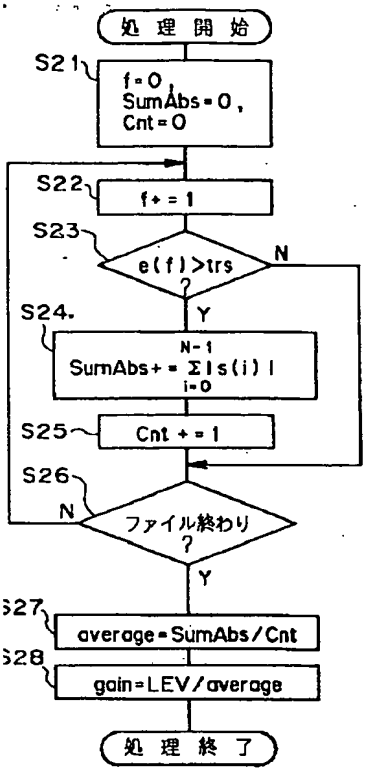
[Drawing 4]



[Drawing 5]



[Drawing 6]



[Translation done.]